

**REMARKS**

**I. Status of the Claims**

The Office Action indicates claims 1-34 to be pending in this Application. With this response, claims 1, 2, 6, 7, 8, 11-15, 17-22, 24, and 27-30 are amended. No new matter has been added.

Claims 1, 5, 12, 14, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banginwar (U.S. Patent No. 6,611,863) in view of Lakshman (U.S. Patent No. 6,341,130).

Claims 2, 4, 6, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banginwar and Lakshman in view of Duvall (U.S. Patent No. 5,884,033).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Banginwar and Lakshman in view of Krumel (U.S. Patent No. 7,013,482).

Claims 7, 11, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banginwar in view of Haggerty (U.S. Patent No. 6,331,983).

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banginwar and Haggerty in view of Duvall.

Claims 9, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banginwar and Haggerty in view of Krumel.

Claims 21-23 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banginwar and Lakshman in view of Wootton (U.S. Patent No. 6,128,298).

Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banginwar, Lakshman, and Wootton in view of Haggerty.

Claims 18, 29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haggerty in view of Woottton.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krumel in view of Woottton.

Claims 19, 20, 28, 30, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duvall in view of Woottton.

Claims 1, 7, 12, 15, 18, 19, 21, 24, and 27-30 are independent.

## **II. Rejection of Independent Claims 1 and 12 under 35 U.S.C. 103**

The Office Action rejects claims 1 and 12 under 35 U.S.C. 103(a) as being unpatentable over Banginwar in view of Lakshman. However, Applicants respectfully submit that Banginwar and Lakshman, taken individually or in combination, fail, for example, to disclose, teach, or suggest:

“... examining a connection from a client machine; [and]  
retrieving a filter parameter for the connection ...”

as set forth in claim 1 (emphasis added).

As another example, Banginwar and Lakshman, taken individually or in combination, fail to disclose, teach, or suggest:

“... examining a message received from a client machine;  
[and]  
retrieving a filter parameter for a connection to the client  
machine ...”

as set forth in claim 12 (emphasis added).

The Office Action, apparently equating the “device discovery” connection of Banginwar with the “connection from a client machine,” the “message received from a client machine,” and the “connection to the client machine” of the claims, and apparently equating the “policies” of Banginwar with the “filter parameter” of the claims, contends that such is disclosed among column 5 line 1 - column 6 line 67, column 7 lines 64-67, and column 8 lines 1-7 of Banginwar.

However, Applicants respectfully submit that even if such equations are taken to be true for the sake of argument, Banginwar would still fail, for instance, to disclose, teach, or suggest that the “policies” are for the “device discovery” connection, and instead discusses the “policies” involving the operation of “devices” with respect to connections other than the “device discovery” connection:

“[t]hese policies can include a wide variety of control policies (or business policies) for controlling the operation of a wide variety of devices (e.g., switches, routers, network interface controllers or NICs, and other network devices). According to an example control policy, all packets (or traffic) received from a specific range of source Internet Protocol (IP) addresses will be blocked (will not be forwarded) when received between the hours of 9am to 5pm. This is just a very simple policy, but much more elaborate or complicated control policies are commonly used to control the operation of network devices. Other types of example control policies include, firewall or security policies, Virtual Private Network (VPN) policies, priority policies (e.g., where certain traffic is given priority over other traffic), quality of service (QoS) policies, Internet Protocol (IP) security policies, etc.”  
(see Banginwar col. 2 ln. 18-33; emphasis added).

In view of at least the foregoing, Applicants respectfully submit that claims 1 and 12, as well as those claims that depend therefrom, are in condition for allowance.

**III. Rejection of Independent Claims 7 and 15 under 35 U.S.C. 103**

The Office Action rejects claims 7 and 15 under 35 U.S.C. 103(a) as being unpatentable over Banginwar in view of Haggerty. However, Applicants respectfully submit that Banginwar and Haggerty, taken individually or in combination, fail, for example, to disclose, teach, or suggest:

“... determining a connection the filter is associated with ...”

as set forth in claim 7 (emphasis added).

As another example, Banginwar and Haggerty, taken individually or in combination, fail to disclose, teach, or suggest:

“... examining a message received from a client machine;  
[and]

retrieving a filter parameter for a connection to the client  
machine ...”

as set forth in claim 15 (emphasis added).

The Office Action, apparently equating the “device discovery” connection of Banginwar with the “connection the filter is associated with,” the “message received from a client machine,” and the “connection to the client machine” of the claims, and apparently equating the “policies” of Banginwar with the “filter” and the “filter parameter” of the claims, contends that such is disclosed among column 5 lines 6-67, column 6 lines 1-30, column 7 lines 64-67, and column 8 lines 1-7 of Banginwar.

However, Applicants respectfully submit that even if such equations are taken to be true for the sake of argument, Banginwar would still fail, for instance, to disclose, teach, or suggest that the “policies” are for the “device discovery” connection, and instead, as noted

above, discusses the “policies” involving the operation of “devices” with respect to connections other than the “device discovery” connection:

“[t]hese policies can include a wide variety of control policies (or business policies) for controlling the operation of a wide variety of devices (e.g., switches, routers, network interface controllers or NICs, and other network devices). According to an example control policy, all packets (or traffic) received from a specific range of source Internet Protocol (IP) addresses will be blocked (will not be forwarded) when received between the hours of 9am to 5pm. This is just a very simple policy, but much more elaborate or complicated control policies are commonly used to control the operation of network devices. Other types of example control policies include, firewall or security policies, Virtual Private Network (VPN) policies, priority policies (e.g., where certain traffic is given priority over other traffic), quality of service (QoS) policies, Internet Protocol (IP) security policies, etc.”

(see Banginwar col. 2 ln. 18-33; emphasis added).

In view of at least the foregoing, Applicants respectfully submit that claims 7 and 15, as well as those claims that depend therefrom, are in condition for allowance.

#### **IV. Rejection of Independent Claim 21 under 35 U.S.C. 103**

The Office Action rejects claim 21 under 35 U.S.C. 103(a) as being unpatentable over Banginwar in view of Lakshman and Wootton. However, Applicants respectfully submit that Banginwar, Lakshman, and Wootton, taken individually or in combination, fail, for example, to disclose, teach, or suggest:

“... detecting a multicast data connection;  
associating the data connection with a filter parameter; [and]  
... fetching the filter parameter ...”

as set forth in claim 21 (emphasis added).

The Office Action, apparently equating the “device discovery” connection of Banginwar with the “data connection” of the claim and apparently equating the “policies” of Banginwar with the “filter parameter” of the claim, apparently contends that such is disclosed among column 5 line 1 - column 6 line 67, column 7 lines 64-67, and column 8 lines 1-7 of Banginwar.

However, Applicants respectfully submit that even if such equations are taken to be true for the sake of argument, Banginwar would still fail, for instance, to disclose, teach, or suggest associating the “device discovery” connection with the “policies,” and instead, as noted above, discusses the “policies” involving the operation of “devices” with respect to connections other than the “device discovery” connection:

“[t]hese policies can include a wide variety of control policies (or business policies) for controlling the operation of a wide variety of devices (e.g., switches, routers, network interface controllers or NICs, and other network devices). According to an example control policy, all packets (or traffic) received from a specific range of source Internet Protocol (IP) addresses will be blocked (will not be forwarded) when received between the hours of 9am to 5pm. This is just a very simple policy, but much more elaborate or complicated control policies are commonly used to control the operation of network devices. Other types of example control policies include, firewall or security policies, Virtual Private Network (VPN) policies, priority policies (e.g., where certain traffic is given priority over other traffic), quality of service (QoS) policies, Internet Protocol (IP) security policies, etc.”

(see Banginwar col. 2 ln. 18-33; emphasis added).

In view of at least the foregoing, Applicants respectfully submit that claim 21, as well as those claims that depend therefrom, are in condition for allowance.

V.

**Rejection of Independent Claim 24 under 35 U.S.C. 103**

The Office Action rejects claim 24 under 35 U.S.C. 103(a) as being unpatentable over Banginwar in view of Lakshman, Wootton, and Haggerty. However, Applicants respectfully submit that Banginwar, Lakshman, Wootton, and Haggerty, taken individually or in combination, fail, for example, to disclose, teach, or suggest:

“... detecting a data connection being closed;  
associating the data connection with a filter parameter; [and]  
... fetching the filter parameter ...”

as set forth in claim 24 (emphasis added).

The Office Action, apparently equating the “device discovery” connection of Banginwar with the “data connection” of the claim and apparently equating the “policies” of Banginwar with the “filter parameter” of the claim, apparently contends that such is disclosed among column 5 line 1 - column 6 line 67, column 7 lines 64-67, and column 8 lines 1-7 of Banginwar.

However, Applicants respectfully submit that even if such equations are taken to be true for the sake of argument, Banginwar would still fail, for instance, to disclose, teach, or suggest associating the “device discovery” connection with the “policies,” and instead, as noted above, discusses the “policies” involving the operation of “devices” with respect to connections other than the “device discovery” connection:

“[t]hese policies can include a wide variety of control policies (or business policies) for controlling the operation of a wide variety of devices (e.g., switches, routers, network interface controllers or NICs, and other network devices). According to an example control policy, all packets (or traffic) received from a specific range of source Internet Protocol (IP) addresses will be blocked (will not be

forwarded) when received between the hours of 9am to 5pm. This is just a very simple policy, but much more elaborate or complicated control policies are commonly used to control the operation of network devices. Other types of example control policies include, firewall or security policies, Virtual Private Network (VPN) policies, priority policies (e.g., where certain traffic is given priority over other traffic), quality of service (QoS) policies, Internet Protocol (IP) security policies, etc.” (see Banginwar col. 2 ln. 18-33; emphasis added).

In view of at least the foregoing, Applicants respectfully submit that claim 24, as well as those claims that depend therefrom, are in condition for allowance.

## **VI. Rejection of Independent Claims 18 and 29 under 35 U.S.C. 103**

The Office Action rejects claims 18 and 29 under 35 U.S.C. 103(a) as being unpatentable over Haggerty in view of Wootton. However, Applicants respectfully submit that Haggerty and Wootton, taken individually or in combination, fail, for example, to disclose, teach, or suggest:

“... removing a filter based on a filter parameter associated with the entry in the table that corresponds to the IGMP message having the instruction to leave a multicast group ...”

as set forth in claim 18 (emphasis added).

As another example, Haggerty and Wootton, taken individually or in combination, fails to disclose, teach, or suggest:

“... removing a filter for an SIT entry that corresponds to the IGMP packet having the instruction to end a subscription ...”

as set forth in claim 29 as amended herewith (emphasis added).

The Office Action, apparently equating the “filter” of the claims with the “filter connection” of Haggerty and apparently equating the “IGMP message having the instruction to leave a multicast group” and the “IGMP packet having the instruction to end a subscription” of the claims with the “Unmap message” of Haggerty, contends that such is disclosed among column 24 lines 11-16 and 34-55, column 29 line 39 - column 31 line 29, and column 33 lines 6-11 of Haggerty.

However, even if such equations are taken to be true for the sake of argument, Haggerty would still fail, for instance, to disclose, teach, or suggest removing the “filter connection” based on the “Unmap message,” and instead merely discusses “remov[ing] the filter” upon receipt of an “acknowledge[ment]” dispatched by an “upstream neighbor”:

“[t]he switch knows when the last receiver to a group on an access port leaves that group, by detecting the lack of IGMP membership reports in response to queries. It removes that port from the outports of any multicast connection for that group. Some of these connections may thereby become filter connections because there are no other outports. Any filter connection with a local sender is immediately removed; if that sender is still active the filter connection would get immediately reinstated as a new sender. For any filter connection with a remote sender, i.e. attached to some other switch, the switch sends an Unmap message up the import toward its upstream neighbor and removes the filter when the Unmap is acknowledged”  
(see Haggerty col. 24 ln. 33-45; emphasis added).

In view of at least the foregoing, Applicants respectfully submit that claims 18 and 29, as well as those claims that depend therefrom, are in condition for allowance.

**VII. Rejection of Independent Claim 27 under 35 U.S.C. 103**

The Office Action rejects claim 27 under 35 U.S.C. 103(a) as being unpatentable over Krumel in view of Wootton. However, Applicants respectfully submit that Krumel and Wootton, taken individually or in combination, fail, for example, to disclose, teach, or suggest:

“... activating a filter based on the filter parameter ...”

as set forth in claim 27 (emphasis added).

The Office Action, apparently equating “locat[ing] an unused entry in the table and fill[ing] it in” of Wootton with “activating a filter” of the claim, contends that such is disclosed among column 6 lines 15-50 of Wootton.

However, Applicants respectfully submit that even if such equation is taken to be true for the sake of argument, Wootton would still fail, for instance, to disclose, teach, or suggest locating an unused entry in the table and filling it in based on a filter parameter, and instead merely discusses that:

“[i]n respect of TCP, when a SYN packet is received from the private network 10, the IP filter 12 locates an unused entry in the table and fills it in, setting the type to TCP and state to SYN”  
(see Wootton col. 6 ln. 31-34; emphasis added).

In view of at least the foregoing, Applicants respectfully submit that claim 27 is in condition for allowance.

**VIII. Rejection of Independent Claim 28 under 35 U.S.C. 103**

The Office Action rejects claim 28 under 35 U.S.C. 103(a) as being unpatentable over Duvall in view of Wootton. However, Applicants respectfully submit that Duval and Wootton, taken individually or in combination, fail, for example, to disclose, teach, or suggest:

“... identifying an SIT entry having an active status as the filter status; [and]

removing a data filter corresponding to a filter parameter of the identified SIT entry ...”

as set forth in claim 28 (emphasis added).

The Office Action, apparently equating the “state in the translation table ... not [being] FIN” of Wootton with the “active status” of the claim and apparently equating the “table entry [being] deleted” of Wootton with “removing a data filter” of the claim, apparently contends that such is disclosed among column 6 lines 15-50 of Wootton.

However, Applicants respectfully observe that even if such equations are taken to be true for the sake of argument, Wootton would still fail, for instance, to disclose, teach, or suggest deleting the table entry where the state in the translation table that is not FIN, and instead discusses that:

“[i]f a FIN packet is received by the IP filter 12 and if the state in the translation table is not FIN, the state is set to FIN and the packet forwarded. If the state is FIN, then the packet is forwarded and the translation table entry is deleted by setting it to 0. A FIN must be sent by each side to close a TCP connection”  
(see Wootton col. 6 ln. 43-48; emphasis added).

In view of at least the foregoing, Applicants respectfully submit that claim 28, as well as those claims that depend therefrom, are in condition for allowance.

## **IX. Rejection of Independent Claims 19 and 30 under 35 U.S.C. 103**

The Office Action rejects claims 19 and 30 under 35 U.S.C. 103(a) as being unpatentable over Duvall in view of Wootton.

However, Applicants respectfully submit that Duvall and Wootton, taken individually or in combination, fail, for example, to disclose, teach, or suggest:

“... determining the filter parameter of a second type of entry that is present in the SIT and not present in the UDP Listener Table”

as set forth in claim 19 (emphasis added).

As another example, Duvall and Wootton, taken individually or in combination, fail to disclose, teach, or suggest:

“... removing a filter that contains a filter parameter corresponding to an SIT entry with which there is no UDP entry associated ...”

as set forth in claim 30 as amended herewith (emphasis added).

The Office Action contends that such is provided by the combination of Duvall and Wootton.

However, Applicants respectfully submit that Duvall and Wootton, even in combination, still fail, for instance, to disclose, teach, or suggest such consideration of an entity being present in a first table and not present in a second table, or an entity of a first table with which there is no entity of a second table associated.

In view of at least the foregoing, Applicants respectfully submit that claims 19 and 30, as well as those claims that depend therefrom, are in condition for allowance.

## **X. Dependent Claim Rejections**

Applicants do not believe it is necessary at this time to further address the rejections of the dependent claims as Applicants believe that the foregoing places the independent claims in condition for allowance. Applicants, however, reserve the right to further

address those rejections in the future should such a response be deemed necessary and appropriate.

**XI. Additional Matters**

Applicants note that all claims stand rejected in United States Patent Application Serial No. 10/226,883 (filed August 23, 2002), which is a continuation-in-part of the present application.

Applicants respectfully submit that the amendments made to the claims herewith are nonlimiting.

*(Continued on next page)*

**CONCLUSION**

Applicants respectfully submit that this application is in condition for allowance for which action is earnestly solicited.

If a telephone conference would facilitate prosecution of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

**AUTHORIZATION**

The Commissioner is hereby authorized to charge any fees which may be required for this submission, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4208-4045.

Furthermore, in the event that a further extension of time is required, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-noted Deposit Account and Order No.

Respectfully submitted,

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